

I claim:

1. A process for microwave destruction of solid contaminated waste comprising:
  - compacting said waste on a platform, wherein said platform contains a carbonaceous substance;
  - radiating said platform with microwaves to produce pyrolysis of said waste;
  - collecting vapors from said pyrolysis with a purge gas; and
  - treating said purge gas with microwaves while passing through an oxidation catalyst bed energized with a carbonaceous substance.
2. The process according to claim 1 wherein said contaminated waste further comprises being selected from the group of harmful wastes consisting of chemical agents, biological agents, and medical waste.
3. The process according to claim 1 wherein all carbonaceous substances further comprise being selected from the group consisting of activated carbon, char, soot, pyrolytic carbon, activated charcoal, metal carbides, and combinations thereof.
4. The process according to claim 1 wherein said purge gas further comprises significant oxygen in order to enhance pyrolysis.
5. The process according to claim 1 wherein said oxidation catalyst bed energized with a carbonaceous substance further comprises being selected from the group consisting of silicon carbide pellets mixed with oxidation catalyst particles, oxidation catalyst particles with a substrate impregnated with silicon carbide, and oxidation catalyst particles deposited over a center of silicon carbide.
6. A process for the microwave destruction of a liquid contaminated waste stream comprising:
  - passing said stream through a bed of carbonaceous substance while radiating said bed with microwaves to produce pyrolysis of said waste.
7. The process according to claim 6 wherein said contaminated waste further comprises being selected from the group of harmful wastes consisting of chemical agents, biological agents, and medical waste.
8. The process according to claim 6 wherein said liquid contaminated waste stream further comprises a biological culture.
9. The process according to claim 6 wherein said carbonaceous substance further comprises

being selected from the group consisting of activated carbon, char, soot, pyrolytic carbon, activated charcoal, metal carbides, and combinations thereof.

10. A process for the microwave destruction of a gaseous contaminated waste stream comprising:

5            passing said stream through a bed of carbonaceous substance while radiating said bed with microwaves to produce pyrolysis of said waste; and  
             treating said stream with microwaves while passing through an oxidation catalyst bed energized with a carbonaceous substance.

11. The process according to claim 10 wherein said stream further comprises significant oxygen in order to enhance pyrolysis.
12. The process according to claim 10 wherein said contaminated waste further comprises being selected from the group of harmful wastes consisting of chemical agents, biological agents, and medical waste.
13. The process according to claim 10 wherein all carbonaceous substances further comprise being selected from the group consisting of activated carbon, char, soot, pyrolytic carbon, activated charcoal, metal carbides, and combinations thereof.
14. The process according to claim 10 wherein said oxidation catalyst bed energized with a carbonaceous substance further comprises being selected from the group consisting of silicon carbide pellets mixed with oxidation catalyst particles, oxidation catalyst particles with a substrate impregnated with silicon carbide, and oxidation catalyst particles deposited over a center of silicon carbide.